

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	WT Docket No. 03-187
Effects of Communications Towers on)	
Migratory Birds)	

**REPLY COMMENTS OF AT&T MOBILITY LLC
F/K/A CINGULAR WIRELESS LLC**

AT&T Mobility LLC f/k/a Cingular Wireless LLC (“AT&T Mobility”) hereby submits these reply comments regarding the *Notice of Proposed Rulemaking* released in the above-captioned proceeding on November 7, 2006 (the “*Migratory Bird NPRM*”).¹ AT&T Mobility wishes to provide the Commission with its “real-world” perspective on the problems, burdens, and costs associated with certain of the proposals offered by the avian community, particularly with regard to proposed restrictions on tower height. In addition, AT&T Mobility supports the Reply Comments of the Infrastructure Coalition and hereby incorporates by reference the evidence and analyses submitted in this proceeding by the Infrastructure Coalition.²

I. INTRODUCTION.

AT&T Mobility shares the Commission’s goal of facilitating the continued buildout of infrastructure necessary to support the nation’s vital wireless communications services in a manner that preserves and protects this Nation’s important environmental resources and diversity,

¹ *Effects of Communications Towers on Migratory Birds*, 21 FCC Rcd 13241 (2006); *see also* Order, DA 07-72 (rel. Jan. 12, 2007) (setting deadlines of April 23, 2007, for comments and May 23, 2007, for reply comments).

² *See generally Migratory Bird NPRM*, Infrastructure Coalition Reply Comments. The Infrastructure Coalition consists of CTIA – The Wireless Association (“CTIA”), PCIA – The Wireless Infrastructure Association, the National Association of Broadcasters, The National Association of Tower Erectors, The Wireless Communications Association International, Inc., and The Association for Maximum Service Television, Inc. (“MSTV”). AT&T Mobility is a member of CTIA.

including migratory birds. In striking this balance, however, the Commission is compelled to recognize that intrusive, command-and-control environmental regulation designed to protect migratory bird populations will necessarily hinder infrastructure deployment and, therefore, should be employed only where substantial scientific evidence demonstrates both that communications towers are a significant contributor to migratory bird mortality and that additional regulation will effectively mitigate that impact. This is particularly pertinent given that virtually all parties to this proceeding agree that avian-tower mortality rates are *declining* while the number of towers is increasing.³

To this end, AT&T Mobility's comments cautioned the Commission to resist the temptation to "get out in front of the science" by adopting new regulations before there is an adequate scientific basis for understanding the effect, if any, communications towers may have on migratory birds.⁴ In addition, AT&T Mobility registered its concern that regulatory "solutions" should not be implemented until there was peer-reviewed data proving that a given solution would work as intended. AT&T Mobility demonstrated that the current record evidence does not support a regulatory preference for medium intensity white strobe lights over red obstruction lighting systems.⁵ Similarly, its comments showed that there was no scientific basis supporting proposed restrictions on the use of guyed towers, requirements regarding the use of guy wire marking systems, or restrictions on tower height.⁶ In fact, adoption of any or all such requirements would impose significant new costs without any significant scientific evidence to support a finding that such requirements will reduce migratory bird mortality. AT&T Mobility, therefore, urged the

³ See *Migratory Bird NPRM*, Infrastructure Coalition Comments at 6-7.

⁴ *Migratory Bird NPRM*, AT&T Mobility Comments at 4-11.

⁵ *Id.* at 11-18.

⁶ *Id.* at 18-25.

Commission to decline to regulate here. The weight of the record filed to date supports AT&T Mobility's basic positions on these issues.

II. THE COMMISSION LACKS EVIDENCE SUFFICIENT TO WARRANT REGULATORY INTERVENTION REGARDING CONCERNS OVER MIGRATORY BIRD MORTALITY AT COMMUNICATIONS TOWERS.

The record before the Commission fails to provide even basic evidence demonstrating that communications towers represent a biologically significant source of migratory bird mortality and that regulatory intervention will provide significant protection against such mortality. Indeed, a large and diverse group of entities oppose any Commission action at this time.⁷ These commenters provide substantial record evidence showing that additional regulation in order to reduce migratory bird mortality at communications towers is neither supported by current science,⁸ nor authorized by law.⁹

In contrast, the record contains surprisingly little meaningful evidence or analysis in support of additional infrastructure regulation. Comments by the American Bird Conservancy *et al.* ("ABC"), the U.S. Department of Interior's Fish and Wildlife Service ("FWS"), Land Protection Partners ("LPP") and other advocates of regulation largely repeat and repackaging anecdotal evi-

⁷ See generally, *e.g.*, *Migratory Bird NPRM*, Comments of the Infrastructure Coalition; Applied Technology Group, Inc. ("ATG"); DTC Wireless ("DTC"); Governor M. Michael Rounds, State of South Dakota; Land Mobile Communications Counsel ("LMCC"); Louisiana Mosquito Control Association ("LMCA"); Named State Broadcasters Associations ("State Associations"); National Public Safety Telecommunications Council; National Telecommunications Cooperative Association ("NTCA"); Prince George's County, MD, Anne Arundel County, MD, Regional Planning Committee 42, Commonwealth of Virginia, Maryland Institute for Emergency Medical Services Systems and Maryland State Highway Administration; South Dakota Bureau of Information & Telecommunications; South Dakota Public Utilities Commission ("SDPUC"); Sprint Nextel ("Sprint"); St. Tammany Parish Mosquito Abatement District 2 ("St. Tammany"); Georgie K. Stanford ("Stanford"); Union Telephone Company ("Union"); United States Cellular Corporation ("USCC"); Utilities Telecom Council ("UTC"); James P. Wagner; Verizon Wireless ("Verizon").

⁸ See, *e.g.*, Comments of the Infrastructure Coalition; ATG; Citicasters Licenses, L.P. ("Citicasters"); DTC; LMCC; NTCA; State Associations; Sprint; Union; USCC; UTG; Verizon; James P. Wagner.

⁹ See, *e.g.*, Comments of the Infrastructure Coalition; Sprint; Union; USCC; Verizon; State Associations.

dence that has previously been shown to be insufficient to warrant additional regulation.¹⁰ Moreover, the Infrastructure Coalition again retained Woodlot Alternatives, Inc. (“Woodlot”) to review and evaluate the limited new scientific evidence and analysis offered in support of additional migratory bird regulation.¹¹ In brief, Woodlot concludes that the new material all contains fundamental (and fatal) flaws.¹² For example, the LPP new avian mortality estimates and the conclusions regarding the biological significance of those estimates are simply not scientifically rigorous.¹³ Similarly, Dr. Joelle Gehring’s Michigan Studies are too limited in sample size and geographic scope to provide meaningful support for regulations that would apply nationwide.¹⁴ Moreover, other studies actually contradict the claimed need for Commission intervention at this time.¹⁵

¹⁰ See generally *Migratory Bird NPRM*, Infrastructure Coalition Reply Comments. These commenters also offer little in the way of new legal argument under the National Environmental Protection Act, the Migratory Bird Treaty Act, or the Endangered Species Act. Indeed, as the Infrastructure Coalition demonstrates, the proponents of additional migratory bird regulation fail to show that the Commission has any legal authority to engage in such regulation. Indeed, given the state of the record before the Commission, the Data Quality Act (“DQA”) specifically forecloses Commission action at this time. *Id.*

¹¹ *Migratory Bird NPRM*, Woodlot Alternatives, Inc., “Technical Comments,” (May 2007) (the “Woodlot Report”), attached to the Infrastructure Coalition Reply Comments. The pertinent findings of the Woodlot Report are summarized in the body of the Infrastructure Coalition Reply Comments.

¹² See generally Infrastructure Coalition Reply Comments.

¹³ *Migratory Bird NPRM*, Land Protection Partners, “Biological Significance of Avian Mortality at Communications Towers and Policy Options for Mitigation: Response to Federal Communications Notice of Proposed Rulemaking Regarding Migratory Bird Collisions with Communications Towers (April 23, 2007) (“LPP Report”).

¹⁴ *Effects of Communications Towers on Migratory Birds*, Gehring, Joelle, Ph.D., “Avian Collision Study for the Michigan Public Safety Communications System (MPSCS): Summary of Spring 2005 Field Season” at 1 (Aug. 12, 2005); *Effects of Communications Towers on Migratory Birds*, Gehring, Joelle, Ph.D., “Avian Collision Study for the Michigan Public Safety Communications System (MPSCS): Summary of Fall 2005 Field Season” at 1 (Dec. 30, 2005); *Effects of Communications Towers on Migratory Birds*, Gehring, Joelle, Ph.D., Kerlinger, Paul, “Avian Collisions At Communications Towers: I. The Role of Tower Height and Guy Wires,” Prepared for State of Michigan (April 2007); Gehring, Joelle, Ph.D., Kerlinger, Paul, “Avian Collisions At Communications Towers: II. The Role of Federal Aviation Administration Obstruction Lighting Systems,” Prepared for State of Michigan (April 2007).

¹⁵ See Lori A. Neilsen and Kenneth R. Wilson, “Clear Channel of Northern Colorado Slab Canyon KQLF-FM Broadcasting Tower Avian Monitoring Project 2002-2004” (Final, Dec. 16, 2006), appended as Exhibit I to Comments of Citicasters; See William R. Evans, Yukio Akashi, Naomi S. Altman, and Al-

(footnote continued on next page)

Given the unsettled (if not contradictory) state of the science, the Commission has absolutely no basis upon which it can conclude that migratory bird mortality at communications towers is biologically significant. Nor can it provide any valid estimate regarding the scope of the benefits (whether measured by the number of birds saved or by any other metric) that would be expected to accrue if the Commission implemented any or all of the regulations or policies currently under consideration. In short, any benefit to migratory bird populations would arise solely as a matter of luck and happenstance, not careful regulatory and scientific planning. Promulgating rules based on such a record would be quintessentially arbitrary and capricious.

III. THE COMMISSION SHOULD NOT RESTRICT TOWER HEIGHT.

Various commenters suggest that the Commission should limit the height of communications towers to 200 feet whenever possible.¹⁶ AT&T Mobility's Comments demonstrate that proposals to limit tower height or to use a threshold of 200 feet as the breakpoint for regulating towers to minimize the use of lights are entirely unwarranted.¹⁷ Indeed, such tower height restrictions would have a significantly adverse effect on infrastructure deployment in rural areas where taller towers bring communications services to widely scattered populations much more efficiently.¹⁸

By way of example, classic mathematics of cell splitting show that, on average, the radius of the coverage area of a 200-foot tower will be roughly one-half that of a 350-foot tower. In

(footnote continued)

bert M. Manville, "Response of Night-migrating Birds in Cloud to Colored and Flashing Light," 60 N. Amer. Birds 476-88 (2007), appended to Comments of Old Bird, Inc.

¹⁶ See *Migratory Bird NPRM*, Comments of the Defenders of Wildlife & National Audubon Society at 11-12 (April 23, 2007); Comments of the American Bird Conservancy, *et al.* (the "Bird Conservancy") at 90 (April 23, 2007); Comments of Portland Urban Migratory Bird Treaty Program Partners at 2 (April 17, 2007).

¹⁷ See *Migratory Bird NPRM*, AT&T Mobility Comments at 21-25.

¹⁸ See *id.* (citing Comments of SDPUC at 2, Comments of the Governor of South Dakota at 1).

turn, reducing the radius of the coverage area by 50 percent implies that a carrier will have to build three towers to provide similar coverage over the same area. This is due, in part, to the reduced radius of the coverage area and, in part, to the fact that antennas on shorter towers are closer to the ground and are more vulnerable to the blocking effects associated with surface features such as trees, buildings, and terrain.

Substituting a single 350-foot guyed tower with three 200-foot guyed towers would increase construction costs by more than 300 percent. Three 200-foot self-supporting towers would cost approximately 250 percent more than a single 350-foot self-supporting tower. In addition, limiting tower heights to 200 feet is fundamentally at odds with Commission and local policies favoring collocation whenever possible. Indeed, many localities and zoning authorities create significant incentives for carriers to build taller towers that better support collocation. Often, they will designate areas on the edges of their communities where they will be willing to approve taller towers in order to support collocation and avoid a proliferation of shorter towers in the middle of their communities.

Unfortunately, a 200-foot tower is simply less able to support collocation than is a taller tower. Typically, service provider platforms on a tower are set approximately 20 feet apart due to engineering concerns.¹⁹ Thus, the service provider at the top of the tower would occupy the space between 180 feet and 199 feet (leaving space for lighting), with the centerline at approximately 190 feet. It follows that the centerlines for collocators would be available at 170, 150, 130, 110 feet, *etc.* As discussed above, however, lower height equates to smaller cover radius

¹⁹ Towers in rural areas tend to have a variety of other tenants (*i.e.*, public safety, business radio, radio or TV broadcast) which may require greater than 20-foot separation between service provider platforms. Also, these towers often host microwave back haul facilities which often require towers more than 200 feet tall to make a necessary line-of-sight path. This would mean that, if towers were restricted to 200 feet, microwave would have to take up the valuable top portion of a 200-foot tower, thereby lowering the centerlines for all other carriers' service platforms.

and greater susceptibility to interference from trees and man-made structures. In that regard, the coverage radius for an antenna at 150 feet would be approximately 67 percent of that for an antenna at 200 feet, which means that the effective coverage provided by an antenna at 150 feet would have about half the effective coverage provided by an antenna at 200 feet. Again, this would require collocating carriers to build numerous sites in order to provide the same degree of coverage that would be available from a single collocation on a taller tower. This simply makes no sense and does not serve the public interest in economically and environmentally sensible infrastructure buildout.

IV. THE COMMISSION SHOULD NOT REQUIRE CARRIERS TO CERTIFY THAT COLLOCATION IS NOT PRACTICAL.

The Bird Conservancy argues that the Commission should require carriers, prior to constructing a new tower, to certify that collocation is not a practical solution and to document existing towers within a five-mile radius that the carrier considered for collocation potential.²⁰ This certification proposal makes no sense from a carrier's perspective. A five-mile "search ring" bears no relationship to how wireless carriers actually identify potential sites.

The size of the search area for a new site is dependent on a number of factors, including the size of the area for which the proposed cell must provide coverage while overlapping with other cells. When a cell site provides coverage over a larger area, it can be located farther away from its neighboring cells. A search ring of five miles in radius implies a cell radius of 25 miles. Carriers operating at 850 MHz, however, cannot provide reliable service with a 25 mile cell radius. Indeed, even in rural, sparsely populated areas, cellular sites can rarely be more than 20 miles from one another (implying a 10 mile cell radius and a two mile search ring) in order to ensure reliable service.

²⁰ Comments of the Bird Conservancy at 71.

In practice, the search ring for cellular service is rarely more than two miles, which implies a cell with a radius of no more than 10 miles. Sites operating at 1900 MHz typically involve even smaller cells, resulting in smaller search rings. Specifically, sites operating at 1900 MHz are typically no more than 10 miles apart (implying a five mile cell radius and a one mile search ring). Moreover, the search rings for both 850 MHz and 1900 MHz sites are often much smaller than two miles and one mile respectively due to the existence of individual surface features, low lying areas, tall buildings, and zoning restrictions, all of which can narrow the search area significantly.

In short, the Bird Conservancy's five-mile search ring proposal is entirely unworkable and should be rejected. As AT&T Mobility discussed in its comments, carriers must have flexibility to build infrastructure that is appropriate to the spectrum they are using and to the specific market they are serving.²¹ Thus, rather than implementing rigid and intrusive regulation regarding tower height, the Commission should leave system design to the carriers' network engineering departments.

CONCLUSION

For the foregoing reasons, and for those reasons set forth in AT&T Mobility Comments, AT&T Mobility urges the Commission to decline to adopt regulations in an effort to mitigate any effects that communications towers are perceived to have on migratory bird populations. The current record before the Commission is rife with disputed facts and anecdotal evidence that support contradictory conclusions regarding whether any impact that towers may have on migratory bird populations is biologically significant and whether the proposed solutions would work

²¹ See *Migratory Bird NPRM*, AT&T Mobility Comments at 22-23.

to protect these populations. Thus, any regulations that the Commission may promulgate would be inherently arbitrary and capricious.

Respectfully submitted,

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